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ABSTRACT

This paper suggests that composition instructors must prepare their students for the ways in which the Information Superhighway affects professional and academic communication. Students must now be proficient in techniques of composing such as hypertext and the recursive writing process to perform various writing and research tasks as a prerequisite to success in both the classroom and on the job. The student is able to visualize the final draft more readily in computer-based writing, thereby becoming encouraged through positive reinforcement, an educational technique that is conducive to learning in any discipline. The teaching strategies in the one composition classroom are geared toward laboratory experiences with ample hands-on time at the computer. For example, the first assignment students must do is to learn how to use WordPerfect. Not only must they achieve a satisfactory degree of competency using the software, they must also reach a level of competency in using the equipment, including troubleshooting computer problems such as printer jams and disk damage. (CR)



Incorporating Computer Literacy into the Composition Classroom

Paper Presented at the CCCCs Convention in April 1998 by

Joanne Rein Shelley

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According to James Berlin, "All truths arise out of dialectic, out of the interaction of individuals within discourse communities" (16-7). Along the same lines, he states, "These truths, after all, concern basic ethical and political decisions that affect the safety of all; they concern the distribution of power in legislatures, the courts, and social groups. In arriving at decisions about these matters, science and logic can be helpful, but ultimately choices are made on the basis of public discourse — individuals working together within a community of discourse trying to decide what will be in the best interests of the group and the individual" (15). Berlin supplements his theory with a discussion of the special relationship that exists between the human mind and nature. He recognizes a direct link that connects the human mind to the environment in which we live. In effect, he acknowledges that it is more than coincidental that we perceive reality according to how our minds are structured. Indeed, we can understand reality only in a manner consistent with how our minds are structured simply because we do not acknowledge what we cannot comprehend. Cross-linking composition theory with psychological studies done by Jerome Bruner and Jean Piaget, Berlin suggests that there can be a cognitive approach to rhetoric. Furthermore, he implies, "The epistemology of these rhetorics assumes a correspondence between the structure of the mind and the structure of nature" (16). This is the point at which Berlin provides a springboard for rhetoric and composition studies in the computer environment because these structures of mind and nature are rapidly changing in our technological era.

The information superhighway, inclusive of the Internet, the World Wide Web, E-mail, and all other current modes of communication have created for us a new nature, that of virtual reality. It is this new mode of communication for which we must prepare our students in a first



year composition classroom. No longer is paper-based essay instruction sufficient to render a student competent in either academia or the work place. In fact, students must now be proficient in techniques of composing such as hypertext and the recursive writing process in order to perform various writing and research tasks as a prerequisite to success in both the classroom and on the job. It is our responsibility as writing instructors, therefore, to ensure that first year students acquire these once periphery skills that now are essential to survival in these technological times.

To provide our students with the up-to-date skills that they need to survive in our competitive and technological global community, it is essential that we investigate the underlying issues that govern how, why and to whom composition is taught in our classrooms today, as the first step toward providing a quality composition curriculum. In placing the composition classroom under scrutiny via cultural analysis, we can arrive at assumptions that allow us to take action toward progressive teaching strategies that recognize and accommodate the cultural factors of ethnicity, gender, and socioeconomic position of the student because these factors play a gargantuan role in a student's ability to compete, never mind to excel, in academia and ultimately the global community. Although a discussion of ethnicity and gender is beyond the scope of this essay, an awareness of socioeconomic position is integral to any discussion that seeks to explore computer literacy in the composition classroom. Without recognition of the problems of access to computers, teaching strategies in the composition classroom will be unproductive because they will only circumvent the real issue, instead of facing it directly, with a goal to eradicate the discrepancies that cause some students to arrive on campus more fluent in computer literacy than others. In approaching a study of composition theory in this manner we



can anticipate and render harmless factors which serve to hinder student achievement in and out of the classroom. Also, addressing the very real phenomenon of socioeconomic position is a valid intervention method to ensure that all students have access to the global community that has evolved suddenly and in which they must compete, either willingly or by default.

Such a sociological and anthropological approach reveals that a trend common in most real time environments, or reality, exists also in cyberspace. In effect, obvious discrepancies exist and serve to divide our global community once again into socioeconomic elites and those subcommunities of individuals left out of the dominant culture. Basically, the cybercommunity is a society of haves and have-nots, although it could be an avenue toward equality if all members of the global community had equal access to it. The issue here is that if truth "arises out of dialectic, out of interaction of individuals within discourse communities" (16-7), as Berlin purports, but not all individuals have access to the dialogue that occurs in the global community of cyberspace because they cannot afford to purchase the medium necessary to participate, namely a computer, then is truth ever attained? Is equality ever attained? To rephrase these two questions another way, whose voice is not heard in our global community?

Following that argument, the best interests of the group as a whole or the individual members of the group are not served if only those members of the group that have access to the medium for dialogue are able to participate in the formulation of truth. The implications of denied access to the cybercommunity are relevant to the composition classroom in that computer literacy has replaced literacy as the means to an individual's ability to compete in both the classroom and the work place. Without access to the equipment, and without the training to use the equipment if access is eventually acquired, a student will not be able to perform the essential



tasks necessary to complete, or even begin, the requirements for a college degree. That access and training must occur in the first year composition classroom if it had not occurred prior to arrival on campus.

Current trends in the global community cause consumers to believe they must possess the latest technologies available. To keep pace with the times, computer vendors aggressively sell their latest products to everyone they can convince that the latest model is the only way to stay one step ahead of the competition in the business world. Schools also focus on this key element. After all, schools must keep pace with the outside world in order to serve their students' best interests, which are to provide them with the knowledge and the skills that will place them in the work force. However, are the students' best interests served merely by purchasing the latest innovation if neither the students nor the instructors know how to use that latest innovation for all it is worth? Has the institution bought into a consumer economy without questioning its purpose for doing so or assessing its ability to engage its students in the new reality that is created by all of these advances in technology? Has the institution considered its students' computer fluency before sitting them down in front of the keyboard? It is grand to be able to state in the recruitment literature that the institution has a homepage and an E-mail address for every student that wants one, but not every student sees the urgency of this bit of propaganda because not every student is aware of the urgency of becoming a vocal member of the global community. It is also a wonderful reflection on the school to be able to announce that there is an abundance of computer laboratories on campus for student use, and all these laboratories have Pentium computers with CD-ROMs and speakers. So what of it, especially if the students cannot find their way through the Windows 95 screen to access Corel WordPerfect? Not one of those



innovations is going to enable the students to get their essays written and handed in on time if they cannot find the right keys on the keyboard. This is a serious and very real issue for many first year students in today's information age when the ability to access information electronically is vital to performance in the classroom and on the job.

Nonetheless, the first year student is required to use the computer in not only his or her composition classroom, but in most of his or her other courses as well. The composition classroom, then, becomes a cross training arena for writing and computer keyboarding. Reality dictates that without instruction in basic computer keyboarding, the student cannot succeed in the composition classroom. In addition, computer keyboarding by itself will not benefit the student in the composition classroom because computer keyboarding does not teach the writing process. However, the strategic combination of computer keyboarding and the writing process creates the sum total of a redefinition of computer literacy to the extent that computer literacy moves beyond the keyboard into document development through a recursive writing process that incorporates efficient use of the features of computer software to enhance the students' productivity at the keyboard.

Once productivity is enhanced, time spent on the works-in-progress is realigned to be used more effectively. For example, students who previously may have been reluctant to proofread now develop the habit of proofreading more readily because changes to documents can be made with a minimal amount of effort, as opposed to the major chore it would have been years ago when the manual typewriter was considered a luxury.

Also, the spell checking feature of word processing software encourages the students to take risks in relation to attempting to use vocabulary that they may not ordinarily use without the



aid of the spell check feature because they know that if they should misspell a word, the computer has a high likelihood of flagging the error and providing them with the option to correct it. In paper-based essay writing, students will generally limit themselves to only those words they feel confident in spelling without the benefit of a dictionary because looking up words in a dictionary can be a tedious process.

In addition, stopping to look up a word in the middle of a thought can cause the thought to vanish, so another advantage of the spell checking feature in word processing software is that the writer can continue with the thought and correct the spelling errors later. This releases the writer from product-specific writing, meaning that the writer recognizes that the essay in production is not a finished product, but, indeed, a work-in-progress. The result is that the writer understands from the onset that the essay is to be revised. Hence, the process of writing is evident, and perceived as necessary, by the student.

Another aspect of computer-based writing is that the essay, being composed on the computer screen, is created in a neat, orderly font, or type, with margins automatically preset at the appropriate width and the page length always on display, as opposed to a possibly illegible handwritten first draft scribbled on scrap paper and marked through with revisions as found in paper-based writing. The student is able to visualize the final draft more readily in computer-based writing, thereby becoming encouraged through positive reinforcement, an educational technique that seems to be the most conducive to learning in any discipline.

Although computer-based writing is the most productive means to a finished product, there are problems for students who have not had the socioeconomic advantage of prior computer experience. In effect, these students are in jeopardy of losing ground in the global community



due to their computer illiteracy.

As a result, the teaching strategies in my composition classroom are geared toward laboratory experiences with ample hands-on time at the computer. Since the primary purpose in my composition course is to help students reduce writing anxiety, it appears that writing in an electronic environment would only hinder this objective and amplify any writing anxiety already in existence. This is obviously counterproductive, unless the electronic writing anxiety is overcome alongside simple writing anxiety. To ensure that my students do overcome any electronic writing anxiety they may experience, I try to anticipate those trouble spots in their electronic writing process that will block success. In effect, I incorporate some details of how computers operate in order to provide my students with an understanding of the various computer malfunctions and inappropriate computer techniques that could cause them to be unsuccessful in essay production.

For instance, the first assignment my students must do is to learn how to use

WordPerfect. Not only must they achieve a satisfactory degree of competency using the
software, they must also reach a level of competency in using the equipment, including
troubleshooting computer problems such as printer jams and disk damage. This task seems
simple enough, until certain factors are taken into consideration. The first obstacle to success
occurs when a student has no disk on which to save his or her work. That is, indeed, the student's
responsibility, but many students do not understand the importance of the disk until it is too late.
The second mishap that occurs is when the student does not know how to format a disk. This
can pose a problem if there is no computer technician around to assist. However, the ultimate
goal in computer literacy is to become self-sufficient, not computer technician dependent.



Thirdly, if the student is able to get through the first two hurdles, but saves his or her document on the hard drive instead of on his or her disk, that student's anxiety level can be expected to rise and a distaste for computer technology can overshadow any need to produce quality essays.

Only through hands-on experience at the computer keyboard will students develop a routine that enables them to perform the necessary steps to electronic essay production. The instructional method used to teach musical instruments is simply carried over to the composition classroom.

A keyboard is a keyboard, and there is a certain level of hand-eye coordination that must be established before a student is deemed proficient at that particular instrument he or she is playing, whether that instrument is a piano or a computer. Until that level of hand-eye coordination is achieved, the student will be anxious. This initial phase is critical in both piano instruction and computer instruction because the student may become so frustrated that he or she quits.

Awareness of this critical period in student computer instruction is the first step toward reducing electronic writing anxiety. As a result, orientation to the laboratory experience is a necessary step that enables my students to adapt to the equipment. The time spent in the lab performing various single objective lessons aids students in learning the routine of a particular lab setting. In general, if a student is comfortable in the environment, or feels at home, the level of anxiety is greatly reduced, allowing the "teachable moment" to occur. This "teachable moment" occurs in the lab on a regular basis because when students are permitted to explore the computer software, including Netscape to access the Internet, the students come to appreciate the power of the resources available to them by a simple click of the mouse button.

There is a caveat here for those students who click the wrong mouse button; however,



that is the reason a facilitator must be present in the lab while students explore the software. A novice can become easily lost in cyberspace without an organized method of approach. Hence, I assign an Internet search as one of my lab assignments so my students will learn what all those icons mean. They learn by doing. The objective of the lesson is to develop their computer screen reading skills. In effect, they are developing their hand-eye coordination because they must use their hands to click the mouse button and press keys on the keyboard while they are looking at the computer screen to decide what to do next. They must read the entire computer screen at once, meaning they must read holistically. After a while, they learn to focus on specific areas of the screen because they learn where the icons for particular tasks are usually placed in the software.

In addition to learning how to read the screen, the students must discover which search engines are the most reliable and which information is credible. In fact, my students learn quickly that there is an abundance of poor quality information on the Internet as well as quality information. One objective of the Internet assignment is to distinguish between the two types of information. Another objective of the Internet assignment is to learn how to read all of the information on the websites. Essentially, reading is a large part of any Internet search to the extent that to be able to sort through all of those websites, an Internet user must be able to determine which links will be the most productive to his or her search. Training the eye to focus holistically on the screen, as opposed to a linear, left to right movement, enables the user to find appropriate information in a swifter manner.

In the final analysis, although we may express a desire to have all the latest equipment for our students, it may not be necessary to always have the top of the line, especially when it may



sit idle because few can operate it. Essentially, computers should not be stored away like all of that exercise equipment purchased around New Year's Day with good intentions that never materialize. Just like Bic pens in the 1960s, computers have become the writing tools of today. They are the unavoidable writing tools of the global community. Unfortunately, not all members of the global community that has been created by computer technology are fully enfranchised because they do not have access to, or do not know how to operate, the very instruments that give them voice in that community. Without a voice in the discourse community of the Internet, a person cannot participate in the public discourse that, according to Berlin, is the avenue for "individuals working together . . . trying to decide what will be in the best interests of the group and the individual" (15). The issue still stands: Should the information superhighway provide public access to all members of the global community, or is it destined to become a toll road? Either way, the composition classroom is the on-ramp.

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